

## EN580E.IL-SC10.GA1T1.02048.K

Solid shaft with clamping flange, 2048 pulses per revolution

Article number: 11246019

### Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level TTL
- Pulses per revolution 2048
- High connection flexibility thanks to flexible connector M12



### Technical data

#### Technical data - electrical ratings

Voltage supply	5 VDC ±5 %
Reverse polarity protection	Yes
Short-circuit proof	Yes (max. 1 s and 1 signal)
Consumption w/o load	≤70 mA
Pulses per revolution	2048
Phase shift	90 ° ±10°
Duty cycle	40...60 %
Reference signal	Zero pulse, width 90° ±10 %
Sensing method	Optical
Output frequency	≤300 kHz (TTL)
Output signals	A+, B+, R+, A-, B-, R-
Output stages	TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-4
Approval	UL Class 2

#### Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	ø10 x 20 mm, solid shaft with flat
Admitted shaft load	≤40 N axial ≤80 N radial
Flange	Clamping flange
Protection EN 60529	IP 54 (flange side) IP 65 (housing side)
Operating speed	≤6000 rpm (+25 °C)
Starting torque	≤0.02 Nm
Material	Housing: aluminium Solid shaft: stainless steel
Operating temperature	-25...+100 °C (see general information)
Relative humidity	95 % non-condensing
Resistance	EN 60068-2-6 Vibration 30 g, 10-2000 Hz EN 60068-2-27 Shock 100 g, 11 ms
Connection	Connector M12, 8-pin, flexible
Weight approx.	300 g

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## General information

Self-heating correlated to installation and ambient conditions as well as to electronics and supply voltage must be considered for precise thermal dimensioning. Operating the encoder close to the maximum limits requires measuring the real prevailing temperature at the encoder flange.

## Terminal assignment

### Connector M12, 8-pin

Pin	Assignment
1	0 V
2	+Vs
3	A+
4	A-
5	B+
6	B-
7	R+
8	R-



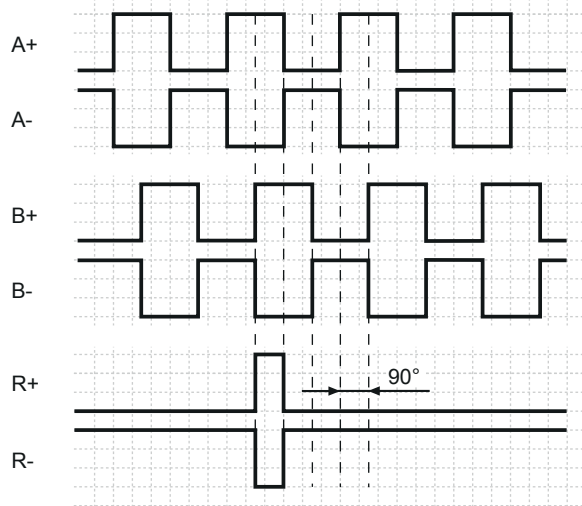
## Trigger level

Outputs	TTL/RS422
Output level High	$\geq 2.5 \text{ V}$
Output level Low	$\leq 0.5 \text{ V}$
Load	$\leq 20 \text{ mA}$

Outputs	HTL/Push-pull
Output level High	$\geq U_B - 3 \text{ V}$
Output level Low	$\leq 1.5 \text{ V}$
Load	$\leq 20 \text{ mA}$

## Output signals

Clockwise rotating direction when looking at flange.

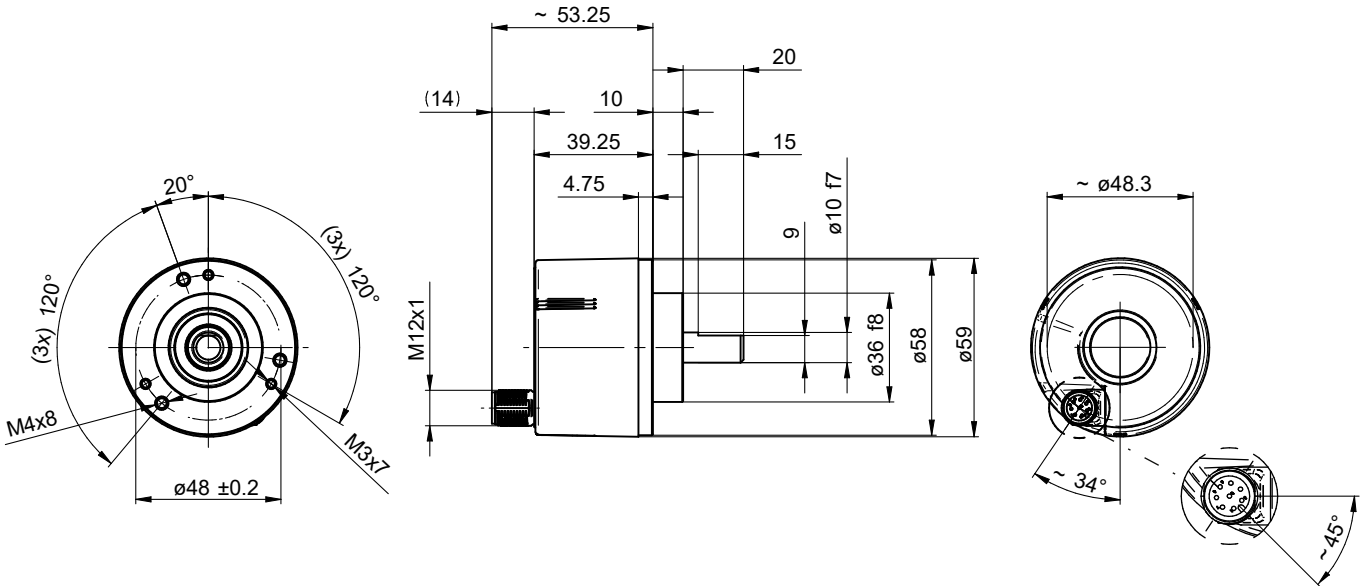


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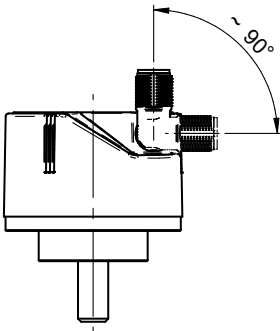
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## Dimensions



Clamping flange, connector M12



Clamping flange, flexible connector M12

**Accessories****Mounting accessories**

11101781	Double loops coupling (D1=10 / D2=10)
11050507	Bellows coupling aluminium/stainless steel D1=06 / D2=10
11065923	Coupling CPS25 L=19 d1=10/d2=10
11065922	Coupling CPS25 L=19 d1=10/d2=06
10141132	Spring washer coupling D1=6 / D2=10
10141133	Spring washer coupling D1=10 / D2=10
11069337	Coupling CPS37 L=24 d1=10/d2=06
11069340	Coupling CPS37 L=24 d1=10/d2=10
11053277	Bellows coupling aluminium/stainless steel 10 mm
11101893	Spring encoder arm
10125051	Mounting adaptor for encoders with clamping flange (M3) (Z 119.017)